The Klystron Binary Status Page L26

Jeff Utterback
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INTRODUCTION

The Klystron Binary Status Page (L26) is a computer program which runs as a Controls Console Application. It was designed to provide important status information for the new 805 Mhz Linac Upgrade.

BINARY STATUS READINGS

Binary status is displayed similarly to the old L25 page. The display uses an X Y format with the station numbers on the X axis and the status type on the Y axis. The stations are numbered 0, V, 1, 2, 3, 4, 5, 6, 7, and D. The text for the status type is taken directly from the database entry descriptions.

In order to allow quick and easy identification of problems, the display uses the green dots and red characters format. Green dots are used to show that the binary status is in the good state. A red character is used to show a bad condition. The red character will be "0", "V" "1'..."7", or "D". This immediately tells the operator the station number which is bad.

Each station has dip switches which can be used to disable certain remote status readings. When a dip switch is in the asserted position, the binary status page will use a yellow character to show that the dip switch is on.

BINARY SETTINGS

There are a few items on the binary status page which are settable. Settable bits are denoted by a yellow dash next to the bit description. The user can easily change a settable bit from one state to the other by clicking the mouse button on the desired bit. Some of the settables are "one-shot" commands rather than binary "on-offs". When the user clicks on a one-shot, such as a reset bit, the status page will execute the command and the displayed bit may momentarily change states and return.

DATABASE NAMES

Upon program startup the status page displays the device text and the descriptive text taken from the database, but in some cases the user may wish to see the actual database names. This can be done by clicking the mouse button on the top line item wich says "Show DBnames"

ANALOG DISPLAY

There are a few analog values which are associated with the new linac. Since the entire page is filled up with binary status, the analog values were placed into an analog window. The analog window can be opened by clicking on the top line item which says "Analog". The analog window can be moved by dragging the top of the window, resized by dragging the bottom of the window, and deleted by clicking on the yellow diamond.

SOFTWARE DETAILS

The L26 page was written by Jeff Utterback in VAX C using the new Fermilab Controls standard "CLIB" routines for application pages. The source code is currently kept in Usr$diskA:[Utterback.Console.L26] and also in MECCA as PA1239. All items on the page are updated at a 1Hz rate. The windowing software was written in a general way so that future needs can be easily added.